CORRES. CONTROL
OUTGOING LTR. NO.
DOE ORDER # 4700.1
03-RF-00038

DIST.	LTR	ENC
DIETER, T.		
FERRERA, D.W.		
FERRI, M.S.		
LINDSAY, D.		
LYLE, J.		
MARTINEZ, L. A.		
PARKER, A.		
POWERS, K.		
SHELTON, D.C.		
SPEARS, M.S.		
TRICE, K.D.		
TUOR, N. R.		
AGUILAR, P.		
ALBIN, C.		
AUBLE, M.		
BEAN, C.		
BUTLER, J. L.		
CERCLA AR (T130G)	X	X
CLARK, D		
DIETERLE, S.		
FRANCIS, M.		
FREIBOTH, C.		
GIBBS, F.		
GUTHRIE, V.		
HUMISTON, T.		
KEHLER, K.		
MARSCHALL, J.R.		
MARTIN, D.		
MYERS, K.	X	X
NESTA, S.	X	X
NORTH, K.		
OLIVER, R.		
OMAN, K.		
PLAPPERT, R.		
PRIMROSE, A.		
ROSENMAN, A.	X	X
SNYDER, D.P.		
VANDERPOEL, M.		
WIEMELT, K.		
WILLIAMS, L.		
CORRES.CONTROL	X	X
ADMIN RECRD/T130G		
TRAFFIC		
PATS/130		

CLASSIFICATION:

UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER SIGNATURE:

Date:

IN REPLY TO RFP CC NO.:

ACTION ITEM STATUS:
☐ PARTIAL/OPEN ☐ CLOSED

LTR APPROVALS:

smn

ORIG. & TYPIST INITIALS:
KLM:pvt

RF-46469(Rev.9/94)

1/10

KAISER•HILL COMPANY

Rocky Flats Environmental Technology Site

JAN 23 2003

03-RF-00038
03-DOE-00029

Mr. Joe Schieffelin
Permitting and Compliance Unit Leader
Federal Facilities Program
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and the Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

CLOSURE DESCRIPTION DOCUMENT FOR PARTIAL CLOSURE OF UNIT 374.3; 700 AND 800 AREA PROCESS WASTE TRANSFER SYSTEM – SMN-002-03

Dear Mr.Schieffelin:

Pursuant to the Rocky Flats RCRA Part B Permit (June 1997), Kaiser-Hill Company, L.L.C. and the United States Department of Energy, Rocky Flats Field Office (DOE, RFFO) are submitting this Closure Description Document for the RCRA Treatment Unit 374.3 – the 700 and 800 Area Process Waste Transfer System, which is anticipated to begin in March 2003.

The Closure Description Document contains a description of the system to be closed, the selected method of closure, the types of contamination to be addressed and the schedule for closure activities. We request approval of the Closure Description Document within 30 days of receipt.

If you have any questions, please contact Stephen Nesta of Kaiser-Hill Remediation, Industrial D&D, & Site Services (RISS) at 303-966-6386.

Stephen M. Nesta 1/9/03
Stephen Nesta Date
Environmental Manager
Remediation, Industrial D&D, & Site Services
Kaiser-Hill Company, L.L.C

Richard M. Salvo acting for
Joseph A. Legare Date
Assistant Manager
Environmental and Stewardship
Rocky Flats Field Office
U.S. Department of Energy

KLM:pvt

Attachments:
As Stated

cc:
S. Tower, RFFO
J. Hindman, CDPHE

JAN 2003
RECEIVED
RECORDS CENTER

ADMIN RECORD

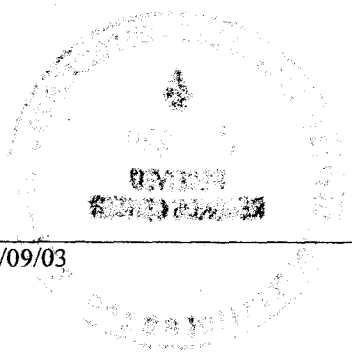
IA-A-001254

Closure Description Document
For Partial Closure of Unit 374.3; The 700 and 800 Area Process Waste Transfer System

U. S. Department of Energy

Rocky Flats Environmental Technical Site

EPA ID No. CO7890010526



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1.0 INTRODUCTION

1.1 Purpose and Scope

The Rocky Flats Environmental Technology Site's (Site) RCRA Permit Part B, Part X addresses closure of permitted units. Removal of the unit is subject to the Closure Plan and to a subsequent Closure Description Document that identifies the portions or sections of the Closure Plan that is applicable to the specific permitted unit closure.

This Closure Description Document applies to the permitted portion of the process waste system in the 800 and 700 areas which includes valve vault 1 through 13, and the associated pipelines to the building boundaries (new process waste lines).

The 400 area Closure Description Document was previously approved (5/24/02 Letter from CDPHE) and closure is currently in progress.

1.2 Unit Closure Notification and Schedule

The Colorado Department of Public Health and Environment (CDPHE), Hazardous Materials and Waste Management Division, is hereby notified of the Site's intent to conduct final closure of the portion of the unit identified in Section 4.0. The submittal of this notification is at least 45 days prior to the beginning of closure activities. Closure activities for this unit will be tied to the RISS decommissioning and demolition schedule, consistent with the Rocky Flats Cleanup Agreement (RFCA).

Within 30 days after completion of final closure activities, a summary report will be submitted to CDPHE containing details about the removal of the specified components of the unit.

1.3 Facility Contacts

The contacts for closure activities at RFETS in the Remediation, Industrial D&D, & Site Services projects are:

~~Assistant Manager~~
Environmental and Stewardship
Rocky Flats Field Office
U.S. Department of Energy
10808 Highway 93, Unit A
Golden, CO 80403-8200
(303) 966-5918

~~Environmental Manager~~
Remediation, Industrial D&D, & Site Services
Kaiser-Hill Company, L.L.C.
10808 Highway 93, Unit B
Golden CO 80403-8200
(303) 966-6386

2.0 METHOD OF CLOSURE AND PERFORMANCE STANDARD

The pipeline components of the permitted system described herein will be closed by the method described as "Clean Closure by Decontamination" in the RCRA Permit Part B

Closure Plan, Part X, Section C. The performance standard will be a final rinse of 5% of the pipeline volume. Valve vault pumps, valves, liners, circuit boards and internal piping will be removed and disposed of as hazardous waste. Secondary containments will also be clean closed by decontamination. Any pipeline segments, which have been subject to leaking of the secondary containment resulting in contaminated soil, will be excavated and disposed of as low level mixed waste.

3.0 SYSTEM DESCRIPTION AND WASTE CHARACTERIZATION

The Process Waste Transfer System is a series of pipelines connecting to valve vaults, which transferred liquid process wastes from Site facilities to Building 374 for treatment.

Each transfer pipeline consists of an outer casing pipe and an inner transfer line. The space between the two pipes serves as a secondary containment for the primary transfer lines. The valve vaults are below-grade concrete pits equipped with ¼ inch Gunnel liners and groundwater collection sumps between the lines and the concrete floor to provide secondary containment.

The following table, Table 3-1, identified the RCRA Waste Codes, the contaminants of concern, and action levels associated with the remaining pipelines and valve vaults. Rinsate from the piping and secondary containment will be compared to Table 3-1 values to determine clean closure.

Table 3-1

Associated RCRA Waste Codes, Contaminants of Concern & Action Levels

RCRA Waste Code	Associated Contaminants of Concern	RFCA Attachment 5, Groundwater Tier II Action Level (mg/L)
D001	Ignitable	No longer meets RCRA characteristic
D002	Corrosive	pH between 6 and 9
D004	Arsenic	5.00E-02
D005	Barium	2.00E+00
D006	Cadmium	5.00E-03
D007	Chromium	1.00E-01
D008	Lead	1.50E-02
D009	Mercury	2.00E-03
D010	Selenium	5.00E-02
D011	Silver	1.83E-01
D018	Benzene	5.00E-03
D019	Carbon Tetrachloride	5.00E-03
D028	1,2 Dichloroethane	5.00E-03
D029	1,1 Dichloroethylene	7.00E-03
D035	Methyl Ethyl Ketone	2.19E+01
D038	Pyridine	16 mg/kg*
D040	Trichloroethylene	5.00E-03
D043	Vinyl Chloride	2.00E-03

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RCRA Waste Code	Associated Contaminants of Concern	RFCA Attachment 5, Groundwater Tier II Action Level (mg/L)
F001	Listed spent halogenated solvents used in degreasing	Action level varies with solvent**
F002	Listed spent halogenated solvents	Action level varies with solvent**
F003	Listed spent non-halogenated solvents	Action level varies with solvent**
F005	Listed spent non-halogenated solvents	Action level varies with solvent**
F007	Spent cyanide plating bath solution from electroplating operations	Action level varies with constituent**
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	Action level varies with constituent**

* Pyridine is not on RFCA Attachment 5, therefore using 6 CCR 1007-3, Part 268.40, Treatment Standards for Hazardous Wastes.
**Analytical results will be evaluated for various components of each solvent associated with the RCRA Waste code.

4.0 SPECIFIC CLOSURE ACTIVITIES

Activities will be designed to achieve the clean closure performance standards, protect human health and the environment, and minimize waste. Specific work instructions, with engineering, health and safety, and waste management information, will be developed prior to start of closure activities. These instructions will be developed in accordance with applicable Site policies and procedures. Closure activities are summarized as follows:

4.1 Establishment of System Boundaries and Scope of Removal

4.1.1 Process Waste Transfer Pipelines

The process waste transfer system boundaries, for the purpose of this CDD, include all process waste lines external to the buildings, which carry liquid waste to the valve vaults. Process waste lines, which are part of the building structure, will be closed under the appropriate building decommissioning and demolition process.

Process waste lines will be rendered RCRA stable by being blown dry, tapped, and drained as the first step in closure activities. Once the process lines have been tapped and drained, they will be cleaned with a "Jetter" system that propels a nozzle down the pipes to flush contaminants back to a collection tank. The "Jetter" system will produce water pressure at the nozzle of approximately 3000 psi, which provides wall-to-wall pipe cleaning action while creating a vacuum ahead of the

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nozzle. The jetting equipment is designed and proven to clean sludge and debris from piping systems through the rigorous physical scrubbing of the pipes with the 3000 psi water jets. Cleaning will be enhanced through the chemical scrubbing achieved by adding trisodiumphosphate (TSP) to the cleaning water. The jetting technology has been successfully used on the partial closure of this RCRA unit; the 400 Area Process Waste Transfer System. The 4 gallons per minute of decontamination water and subsequent rinse water will be collected and managed under the Aqueous Waste Treatment System (AWTS) as low level mixed waste.

The jetter equipment is limited to relatively straight runs of piping, and is limited by length to a run of 300 feet of pipe. Process lines that exceed 300 feet will be jetted from both directions. Potential obstructions due to piping configurations (90 degree elbows, short radius elbows, check valves, etc.) or unknown obstructions of material will be recorded and evaluated further in the closure report.

Decontamination water will be collected in drums at the openings of the process waste lines in the valve vaults. The decontamination water will be pumped from the collection drums into collection tanks, or other suitable containers, for transfer and management in the AWTS.

After jetting, water will be introduced into the pipes and the resulting rinsate will be sampled to prove RCRA clean closure. The process waste lines are designed to be gravity-fed to the valve vaults. Rinsate water will be introduced at the highest elevation of the pipeline, and flow through the pipes to the valve vault for sample collection. The final rinsate will be tested for pH and the concentration of contaminants for concern as listed in Table 3-1. Rinsate that tests below the action levels for listed waste constituents associated with the unit will be managed as non-hazardous waste.

Subsequent to rinsing and sampling, the process waste lines will be capped to eliminate the potential for additional water from contacting the inside of the piping.

In the event that particular segments of pipeline cannot or should not be jetted; for example, there was a breach of secondary containment resulting in contaminated soil, the pipeline will be excavated and disposed of as low level mixed waste.

4.1.2 Valve Vaults

All equipment associated with the valve vaults, such as the sump pumps, internal valve vault piping, flanges and valves will be removed and disposed of as hazardous waste. The Gunnel liner will be removed after the process lines into and out of the vault have been cleaned, and disposed of as hazardous waste. The vault itself will be decontaminated, rinsed and sampled to demonstrate RCRA closure standards have been

met. Combinations of manual scrubbing and high pressure washing will be utilized to decontaminate the concrete vaults.

The final rinsate will not exceed a volume of 5% of the capacity of the system or the minimum amount necessary to collect an adequate sample volume for analysis.

Concrete determined to be RCRA clean and meeting the definition of free release, as defined in the RSOP for Recycle Concrete, will be left in place and backfilled.

4.1.3 Closure by Removal

If clean closure cannot be accomplished for either the process waste transfer lines or the valve vaults, these portions of the system will be removed and disposed of in accordance with applicable waste characterization requirements.

4.2 Preparation of Engineering and IWCP Work Packages

A unit specific IWCP/engineering work package will be prepared for decontamination of the Process Waste Transfer System. The Site's Health and Safety Practices Manual defines general health and safety measures to be followed at the Site. Closure activities will be conducted in accordance with this manual, incorporating the results of job specific industrial and nuclear safety related evaluations and screens.

The IWCP/engineering work package, Radiological Work Permit, and Beryllium Work Form will be used to control work, including specification of personal protective equipment for radiological and beryllium contamination, methods for containing any liquids or preventing releases to the environment, and waste packaging. As Low As Reasonably Achievable (ALARA) principles will be followed regarding personnel exposure to radiation. Radiological containment will be provided, if necessary.

5.0 DISPOSITION OF CLOSURE WASTES

Waste management, handling, transportation and disposal will comply with the requirements of the RCRA Part B permit, RFETS procedures, and State and Federal regulatory guidelines. All cleaning liquids generated during the Process Waste Transfer System closure will be collected and managed under the AWTS system. Solid wastes that meet the clean closure requirements, and demonstrate no other hazardous or radiological characteristics, will be disposed of as construction debris. All other wastes will be managed and disposed of in an appropriate manner.

6.0 RECORD KEEPING

The following closure records will be maintained on Site during closure activities and at a federal repository for a minimum of 30 years following the report of closure:

- Record of sampling activities including type, number and date of samples;
- Analytical results;
- Work instructions used to conduct closure activities and documentation verifying closure activities were conducted in accordance with the RCRA Permit Part B Closure Plan and this Closure Description Document;
- Records of the volume of hazardous waste generated during closure, as documented in the Closure Summary Report.

7.0 AMENDMENT OF THE CLOSURE DESCRIPTION DOCUMENT

In conducting closure activities, unexpected events that are identified during implementation of closure activities may require an amendment to this Closure Description Document. Modifications to this Closure Description Document will be made in accordance with applicable regulations.

8.0 REFERENCES

1. Code of Colorado Regulations, Vol. 6, No. 1007-3.
2. Rocky Flats Environmental Technology Site RCRA Permit, Part B, Part X, Closure Plan, Section C, May 20, 1999
3. Rocky Flats Cleanup Agreement (RFCA), July 19, 1996

Attachment 2
Mr. Joe Schieffelin
SMN-002-03
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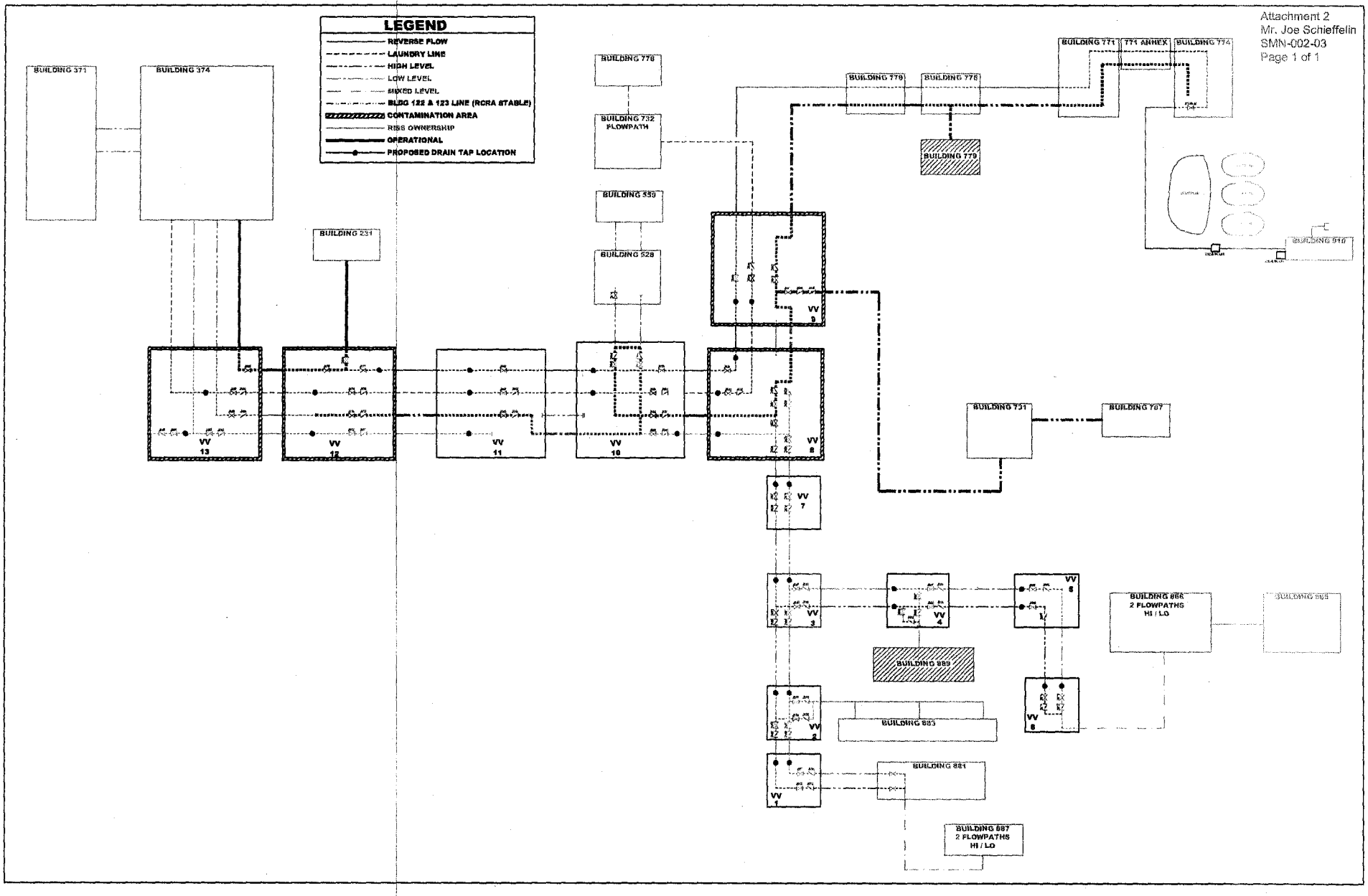

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